

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF: Tadashi KAI, et al.

SERIAL NO: New Application

GAU:

FILED: Herewith

EXAMINER:

FOR: MAGNETORESISTANCE ELEMENT, MAGNETIC MEMORY, AND MAGNETIC HEAD

**INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97**

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

Applicant(s) wish to disclose the following information.

**REFERENCES**

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**RELATED CASES**

- ☒ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check or credit card payment form is attached in the amount required under 37 CFR §1.17(p).

**CERTIFICATION**

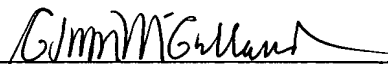
- ☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

**DEPOSIT ACCOUNT**

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check or credit card payment is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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**LIST OF RELATED CASES**

<u>Docket Number</u>	<u>Serial or Patent Number</u>	<u>Filing or Issue Date</u>	<u>Inventor/ Applicant</u>
220120US2RD	10/102,944	03/22/02	KISHI et al.

DOCKET NO.: 244233US2SRD/rm

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MAGNETIC HEAD

**STATEMENT OF RELEVANCY**

**Reference AO (JP 9-251621) on PTO Form 1449:**

This reference shows a structure having two ferromagnetic layers and a nonmagnetic layer intervening there between. The two ferromagnetic layers are coupled antiferromagnetically to each other.

**Reference AP (JP 2001-156358) on PTO Form 1449:**

This reference shows a structure having a plurality of ferromagnetic layers and nonmagnetic layers intervening there between. The nonmagnetic layers are formed of Cu, Au, Ag, Cr, Ru, Ir, Al and alloy thereof.

**Reference AQ (JP 2002-151758) on PTO Form 1449:**

This reference shows a structure having a plurality of ferromagnetic layers and nonmagnetic layers intervening there between. The ferromagnetic layers are coupled antiferromagnetically to each other.

**Reference AR (JP 2002-280642) on PTO Form 1449:**

This reference shows a structure having two ferromagnetic layers and a nonmagnetic layer intervening there between. The two ferromagnetic layers are coupled antiferromagnetically to each other.

DOCKET NO.: 244233US2SRD/rm

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MAGNETIC HEAD

**STATEMENT OF RELEVANCY**

**Reference AS (JP 2002-289941) on PTO Form 1449:**

This reference shows a structure having two magnetic layers and a nonmagnetic layer intervening there between. The nonmagnetic layer is formed of Ru, Ir, Ar, Au, Ag, and alloy thereof.

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. <b>244233US2SRD</b>		SERIAL NO. <b>New Application</b>	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT <b>Tadashi KAI, et al.</b>			
				FILING DATE <b>Herewith</b>		GROUP	
<b>U.S. PATENT DOCUMENTS</b>							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES                  NO		
	AO	9-251621	09/22/97	JAPAN			X
	AP	2001-156358	06/08/2001	JAPAN			X
	AQ	2002-151758	05/24/2002	JAPAN			X
	AR	2002-280642	09/27/2002	JAPAN			X
	AS	2002-289941	10/04/2002	JAPAN			X
	AT						
	AU						
	AV						
<b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)</b>							
	AW						
	AX						
	AY						
	AZ					<input type="checkbox"/> Additional References sheet(s) attached	
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							